

What is claimed is:

1. An anode catalyst for a fuel cell comprising gold fine particles.

2. An anode catalyst for a fuel cell comprising a conductive support on which gold fine particles are coated.

3. An anode catalyst for a fuel cell comprising:
gold fine particles, and
at least one member selected from the group consisting of titanium, vanadium, gallium, zirconium, niobium, cerium, tantalum, indium and the oxides of these metals.

4. The anode catalyst according to claim 3, wherein the gold fine particles and the at least one member selected from the group consisting of titanium, vanadium, gallium, zirconium, niobium, cerium, tantalum, indium and the oxides of these metals is coated on a conductive support.

5. An anode catalyst for a fuel cell comprising gold fine particles and at least one member selected from the group consisting of platinum, ruthenium, and ruthenium oxides.

6. The anode catalyst for a fuel cell according to claim 5, wherein gold fine particles and at least one member

selected from the group consisting of platinum, ruthenium, and ruthenium oxides is coated on a conductive support.

7. An anode catalyst for a fuel cell comprising:

gold fine particles;

at least one member selected from the group consisting of titanium, vanadium, gallium, zirconium, niobium, cerium, tantalum, indium, and the oxides of these metals; and

at least one member selected from the group consisting of platinum, ruthenium, and ruthenium oxides.

8. The anode catalyst according to claim 7, wherein the gold fine particles, the at least one member selected from the group consisting of titanium, vanadium, gallium, zirconium, niobium, cerium, tantalum, indium, and the oxides of these metals, and the at least one member selected from the group consisting of platinum, ruthenium, and ruthenium oxides are coated on a conductive support.

9. The anode catalyst according to claim 2, wherein the conductive support is made of carbon.

10. The anode catalyst according to claim 4, wherein the conductive support is made of carbon.

11. The anode catalyst according to claim 6, wherein the conductive support is made of carbon.

12. The anode catalyst according to claim 8, wherein the conductive support is made of carbon.

13. A fuel cell comprising the anode catalyst according to any one of claims 1-12, further including an anode containing catalyst.

14. An anode catalyst for a fuel cell having an electrode junction body in which an anode and a cathode are joined at one end of a proton exchange membrane and the other end thereof, respectively, comprising: an anode catalyst according to any one of claims 1-12.

15. An anode catalyst for a fuel cell having an electrode junction body in which an anode and a cathode are joined at one end of a proton exchange membrane and the other end thereof, respectively, comprising: an anode catalyst according to claim 13.

16. The fuel cell according to claim 14 comprising:
an anode in which a layer whose catalyst component is gold fine particles, or gold fine particles and at least one member selected from the group consisting of titanium, vanadium, gallium, zirconium, niobium, cerium, tantalum, indium, and the oxides of these metals, or at least one member selected from the group consisting of platinum,

ruthenium, and ruthenium oxides is laminated on a platinum catalyst layer, or gold fine particles and at least one member selected from the group consisting of titanium, vanadium, gallium, zirconium, niobium, cerium, tantalum, indium, and the oxides of these metals, and at least one member selected from the group consisting of platinum, ruthenium, and ruthenium oxides is laminated on a platinum catalyst layer is formed on a platinum catalyst layer.

17. The fuel cell according to claim 15 comprising:
an anode in which a layer whose catalyst component is gold fine particles, or gold fine particles and at least one member selected from the group consisting of titanium, vanadium, gallium, zirconium, niobium, cerium, tantalum, indium, and the oxides of these metals, or at least one member selected from the group consisting of platinum, ruthenium, and ruthenium oxides is laminated on a platinum catalyst layer, or gold fine particles and at least one member selected from the group consisting of titanium, vanadium, gallium, zirconium, niobium, cerium, tantalum, indium, and the oxides of these metals, and at least one member selected from the group consisting of platinum, ruthenium, and ruthenium oxides is laminated on a platinum catalyst layer is formed on a platinum catalyst layer.